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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/799,008      | 03/12/2004  | Lakhi N. Goenka      | 10541-1941          | 7568             |

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EXAMINER

PHILLIPS, FORREST M

ART UNIT PAPER NUMBER

2837

DATE MAILED: 08/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                 |                               |  |
|------------------------------|---------------------------------|-------------------------------|--|
| <b>Office Action Summary</b> | Application No.<br>10/799,008   | Applicant(s)<br>GOENKA ET AL. |  |
|                              | Examiner<br>Forrest M. Phillips | Art Unit<br>2837              |  |

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 2, 8-11 and 16-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-7 and 12-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/12/04</u> . | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Election/Restrictions***

Claims 2,8-11, and 16-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7/31/06.

Applicant's election without traverse of embodiment 1 of figure 1 in the reply filed on 7/31/06 is acknowledged.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Kostun et al (US6792907).

With respect to claim 1 Kostun discloses a resonator for attenuating acoustic pressure pulsation in an air passage, the resonator comprising: a neck (24 in figure 1) attached in a side branch configuration with the air passage, the neck having a neck length; at least one wall forming a resonator chamber (12 in figure 1), a first member (14 in figure 1) located within the resonator chamber, the first member cooperating with the

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at least one wall to for a resonator volume (20 in figure 1), and a first actuator (18 in figure 1) coupled to the first member, and configured to translate the first member changing the resonator volume and neck length (column 3 lines 11-15).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kostun in view of Field et al (US5475189).

With respect to claim 3 Kostun discloses the resonator according to claim 1.

Kostun does not disclose expressly wherein the first actuator includes a motor and a screw.

Field teaches the use of a motor (50 in figure) and a screw (40 in figure) as a means of translating a member to change the volume of a resonator.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Field to use a motor and a screw as an actuator with the resonator of Kostun.

The motivation for doing so would be to provide an effective and easily controlled means of varying the volume.

Claims 4,5,7, 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kostun in view of Sawada et al (US4539947).

With respect to claim 4 Kostun discloses the resonator according to claim1.

Kostun does not disclose further comprising a second actuator coupled to the first member and the neck.

Sawada discloses an actuator (18 in figure 2) coupled with the back wall of a resonator and coupled to the neck (15 in figure 2) .

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Sawada to have an actuator coupled with the neck and the back wall with the resonator of Kostun. As The back wall of Kostun's resonator is the movable member the second actuator would be coupled with the first member.

The motivation for doing so would be to further tune the resonator via an easily controlled mechanism.

With respect to claim 5 Sawada further discloses wherein the second actuator is configured to vary the neck length (refer to figures 5 and 6).

With respect to claim 7 Sawada further discloses further comprising a second member (15b in figure 2) coupled to the neck and configured to change the resonator volume in relation to the neck length (refer to figures 5 and 6).

With respect to claim 12 Kostun discloses a resonator for attenuating acoustic pressure pulsation from an air passage, a neck (24 in figure 1) attached in a side branch configuration with the air passage, the neck having a neck length; at least one wall forming a resonator chamber (12 in figure 1), a first member (14 in figure 1) located

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within the resonator chamber, the first member cooperating with the at least one wall to for a resonator volume (20 in figure 1), and a first actuator (18 in figure 1) coupled to the first member, and configured to translate the first member changing the resonator volume and neck length (column 3 lines 11-15).

Kostun does not disclose a second actuator coupled with the first member and the neck.

Sawada discloses an actuator coupled with the an actuator (18 in figure 2) coupled with the back wall of a resonator and coupled to the neck (15 in figure 2) .

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Sawada to have an actuator coupled with the neck and the back wall with the resonator of Kostun. As The back wall of Kostun's resonator is the movable member the second actuator would be coupled with the first member.

The motivation for doing so would be to further tune the resonator via an easily controlled mechanism.

With respect to claim 13 Sawada further discloses wherein the second actuator is configured to vary the neck length (refer to figures 5 and 6).

With respect to claim 15 Kostun discloses a resonator for attenuating acoustic vibration from an air passage, the resonator comprising: a neck (24 in figure 1) attached in a side branch configuration with the air passage, the neck having a neck length; at least one wall forming a resonator chamber (12 in figure 1), a first member (14 in figure 1) located within the resonator chamber, the first member cooperating with the at least one wall to for a resonator volume (20 in figure 1), and a first actuator (18 in figure 1)

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coupled to the first member, and configured to translate the first member changing the resonator volume and neck length (column 3 lines 11-15).

Kostun does not disclose a second member coupled to the neck and configured to change the resonator volume in relation to the neck length.

Sawada discloses a second member (15b in figure 2) coupled to the neck and configured to change the resonator volume in relation to the neck length (see figures 5 and 6).

Claims 6 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kostun in view of Sawada as applied to claims 5 and 12 above, and further in view of Feild.

With respect to claim 6 Kostun in view of Sawada discloses the resonator according to claim 5.

Kostun in view of Sawada does not disclose wherein the second actuator includes motor and a screw.

Field discloses the use of a motor (50 in figure) and a screw (40 in figure) as an actuator for varying resonator characteristics.

At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the teachings of Field to use a motor and a screw as the second actuator as taught by Kostun in view of Sawada.

The motivation for doing so would be to provide an effective and easily controlled actuator for moving the members.

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With respect to claim 14 Kostun in view of Sawada discloses the resonator according to claim 12.

Kostun in view of Sawada does not disclose wherein the second actuator includes motor and a screw.

Field discloses the use of a motor (50 in figure) and a screw (40 in figure) as an actuator for varying resonator characteristics.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bloomer (US6422192); Marks (US7055484).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Forrest M. Phillips whose telephone number is 5712729020. The examiner can normally be reached on Monday through Friday 8:30-5:00.

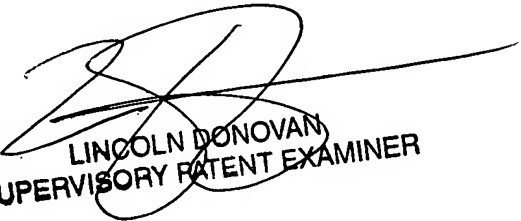
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on 5712721988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FP

  
LINCOLN DONOVAN  
SUPERVISORY PATENT EXAMINER